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P/No. : Z6806-1130-01A
VAN 10. 02

High Resolution Mini Dome Camera SCD-2010/2030 User Guide

Before installing and operating this product,
please read this manual thoroughly.

ENGLISH

CAUTION
RISK OF ELECTRIC SHOCK
DO NOT OPEN

CAUTION :
TO REDUCE THE RISK OF ELECTRIC SHOCK,
DO NOT REMOVE COVER (OR BACK).
NO USER SERVICEABLE PARTS INSIDE.
REFER SERVICING TO QUALIFIED
SERVICE PERSONNEL.

The lightning flash with arrowhead symbol, within an equilateral triangle is intended to alert the user to the presence of uninsulated "dangerous voltage" within the product's enclosure that may be of sufficient magnitude to constitute a risk of electric shock to persons.

The exclamation point within an equilateral triangle is intended to alert the user to the presence of important operating and maintenance (servicing) instructions in the literature accompanying the appliance.

INFORMATION - This equipment has been tested and found to comply with limits for a Class A digital device, pursuant to part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference when the equipment is operated in a commercial environment. This equipment generates, uses, and can radiate radio frequency energy and, if not installed and used in accordance with the instruction manual, may cause harmful interference to radio communications. Operation of this equipment in a residential area is likely to cause harmful interference in which case the user will required to correct the interference at his own expense.

WARNING - Changes or modifications not expressly approved by the manufacturer could void the user's authority to operate the equipment.

WARNING : To prevent electric shock and risk of fire hazards:
◆ Do NOT use other than specified power source.
◆ Do NOT expose this appliance to rain or moisture.

This installation should be made by a qualified service person and should conform to all local codes.

Before operating the camera, confirm the camera model and correct input power voltage. To help you understand this manual thoroughly, we'll introduce our model description.

■ **SCD-2010 SERIES, 2030 SERIES**
• NTSC models : SCD-2010N, SCD-2030N
• PAL models : SCD-2010P, SCD-2030P

■ **Model Description**
• SCD-2010X SCD-2030X
SIGNAL SYSTEM
• SIGNAL SYSTEM
N →NTSC Model
P →PAL Model

Features

High Resolution

By adopting a diagonal 6mm(1/3") 410,000(NTSC) pixel, 470,000(PAL) pixel SONY CCD, the camera produces clear picture quality with a horizontal resolution of 600 TV lines for color.

Excellent Sensitivity

The built-in high sensitivity COLOR CCD produces a clear image even in 0.04 Lux or lower illumination.

SSNR3 Function
(Samsung Super Noise Reduction)

The high-performance W-V DSP chip effectively removes low-light gain noise and afterimage to provide clear images even in dark environments.

Pan and Tilt

Pan and tilt are available after installing camera.

eco RoHS compliant

Samsung Techwin cares for the environment at all product manufacturing stages to preserve the environment, and is taking a number of steps to provide customers with more environment-friendly products.The Eco mark represents Samsung Techwin's will to create environment-friendly products, and indicates that the product satisfies the EU RoHS Directive.

Warnings & Cautions

This information is provided to ensure your safety and to prevent any losses, financial or otherwise. Please read it carefully and use the product accordingly.

* For product inquiries, please contact the retail shop where you bought the camera. The use of equipment such as an aerial ladder while providing after-sales service shall be at your expense.
* Separate the power plug during a thunder storm.
* This product is support equipment for surveillance system. Therefore, we can't compensate for material loss and/or personal injuries by robbery, fire, natural disaster or other such events.

Warning/Attention/Special Mark Messages

⚡	Ignoring this information may result in material loss and/or serious personal injuries including death.	!	Ignoring this information may result in material loss and/or a slight injuries.
⊘	Indicates "Never Allowed."	⊘	Indicates "No Disassembling."

Correct Disposal of This Product
(Waste Electrical & Electronic Equipment)
(Applicable in the European Union and other European countries with separate collection systems)

This marking shown on the product or its literature, indicates that it should not be disposed with other household wastes at the end of its working life. To prevent possible harm to the environment or human health from uncontrolled waste disposal, please separate this from other types of wastes and recycle it responsibly to promote the sustainable reuse of material resources.

Household users should contact either the retailer where they purchased this product, or their local government office, for details of where and how they can take this item for environmentally safe recycling.

Business users should contact their supplier and check the terms and conditions of the purchase contract. This product should not be mixed with other commercial wastes for disposal.

Precautions

Do not install under extreme temperature conditions.

Use only under temperature conditions between -10℃ and +50℃. Provide good ventilation when using in high temperature conditions.

Do not install in high humidity environment.

May lower image quality.

Do not install under unstable lighting conditions.

Severe lighting changes or flickering may hinder normal camera operation.

Avoid touching the camera lens.

The lens is the most important component of the camera. Be careful not to smear it with fingerprints.

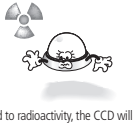
Do not drop the camera or subject it to physical shock.

May cause a product malfunction.

Never keep the camera face to strong light directly.

May damage the CCD.

Do not expose the camera to radioactivity.



If exposed to radioactivity, the CCD will fail.

Do not expose the camera to rain or other types of liquids.

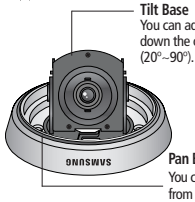
May cause a product malfunction.Wipe dry any liquids. Liquids may contain minerals that are corrosive to electronic components.

Notes

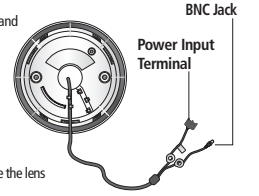
• Exposure to a spotlight or an object emitting strong light may cause smear or blooming.
• Ensure that the power source complies with normal specifications before supplying it to the camera.

Getting to Know Your Camera

Front



Bottom



Accessories

User Guide

Quick Install Guide

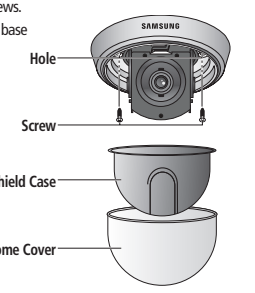
M4 Taping Screw 2EA

Template

Installation

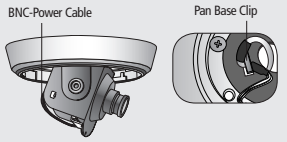
Installing Camera

1. Fix the camera to a ceiling using two screws.
2. After fixing it, adjust its pan base and tilt base properly.
3. After setting them, secure the shield case and dome-cover.



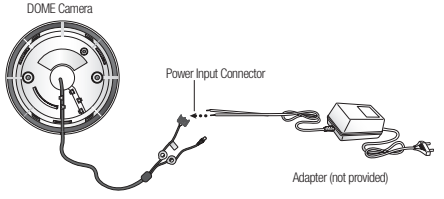
Notes

- When installing the camera on a ceiling not to disturb adjustment of Tilt Base angle fix the BNC-Power Cable on the Pan Base clip.



Connecting to Power

- Connect the adapter to the power input connector as shown in the figure below. Use a DC 12V. (The Adapter is not provided with the Dome Camera.)



For DC Power Type

Resistance of copper wire [at 20C°(68°F)]

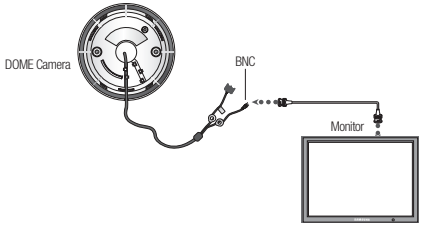
Copper wire size (AWG)	#24(0.22mm²)	#22(0.33mm²)	#20(0.52mm²)	#18(0.83mm²)
Resistance (Ω / m)	0.078	0.050	0.030	0.018
Voltage Drop (V/m)	0.028	0.018	0.011	0.006

- As the voltage drop according to the length of the cable in the above table, a camera may malfunction if there is an excessively long cable run.
  * Voltage for camera operation: 12V DC ±10%
  * Voltage drops in the above table are variable according to types of cable manufacturer.

Connection to Monitor

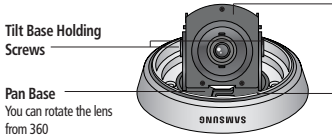
Connect the VIDEO-OUT jack to the VIDEO-IN jack of monitor.

- As a connecting method varies according to instruments, refer to the manual supplied with the instrument.
- Connect the cable after power is turned off.



Panning & Tilting Control

You can adjust the Panning and Tilting angle freely. (Panning angle: 360°, Tilting angle: 20°~90°)


Tilt Base Holding Screws
Tilt Base
You can adjust up and down the camera (20°~90°).
Pan Base
You can rotate the lens from 360
Pan Base Holding Screw
SAMSUNG

1) Adjustment Panning angle: After attaching the dome camera to a ceiling, adjust the panning angle for better monitoring area by rotating the Pan Base. The panning angle can be adjusted 360° freely.
2) Adjustment Tilting angle: After attaching the dome camera to a ceiling, adjust the tilting angle for better monitoring area by rotating the Tilt Base. The tilting angle can be adjusted to 20° from 90° freely. (based the ceiling surface)

Notes

- After loosening Pan or Tilt Base holding screws, adjust its angle. And then tighten screws again.
- In case of adjusting the tilting, do not take the lens for preventing hysical shocks. Please take the Tilt Base.
- This dome camera is to be installed on the ceiling by factory default.

Camera Operation

Built-in functions of the SCD-2010, SCD-2030 Camera include the following

Auto Functions	Setting	Descriptions
Electronic Shutter Speed	ESC	The shutter is controlled according to the brightness of screen by automatically.
WHITE BALANCE	ATW	It can be used within the color temperature range 1,700K ~ 11,000K.
BACKLIGHT	OFF	It helps view a desired area of picture at the backlight condition.
GAIN CONTROL	HIGH	The gain increases or decreases within the range of 6dB~34dB.
SSNR3 (Noise Reduction)	ON	There is sufficient reduction in noise levels without causing much ghost imaging.
SENS-UP	AUTO	It helps maintain a bright, clear screen image by automatically detecting changes in the level in low light levels without causing much ghost imaging.
SHARPNESS	ON	The outline of the video image becomes cleaner and more distinctive.
LENS SHADE	ON	It helps correct shading of Lens.

※ If you need to control OSD menu, It needs control KEY or coaxial controller.

Troubleshooting

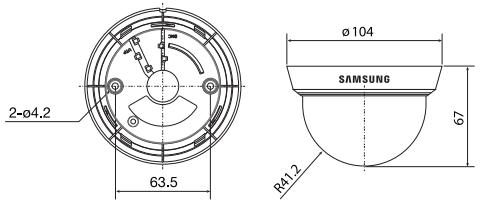
If you have trouble operating your camera, refer to the following.
If the guidelines do not enable you to solve the problem, contact an authorized technician.

■ The image on the screen is dim.
- Check if the lens are stained. If dirty, clean the lens with soft, clean cloth.
- The image is dimmer at night than daytime. If the focus is not right, adjust it at daytime.

■ The contrast on the screen is too weak.
- Adjust the contrast feature of the monitor.
- If the camera is exposed under too strong light, change the camera position.
- Adjust the lens BACK FOCUS again.

■ The camera is not work properly, and the surface of the camera case is hot.
- Check that you have connected the camera to a proper power (DC 12V).

Dimension



Specification

	SCD-2010N	SCD-2030N	SCD-2010P	SCD-2030P
ELECTRICAL				
Input Voltage	DC 12V ±10%			
Power Consumption	Max 1.8W			
VIDEO				
Imaging Device	1/3 inch, Sony Super HAD CCD			
Total Pixels	811(H) x 508(V)		795(H) x 596(V)	
Effective Pixels	768(H) x 494(V)		752(H) x 582(V)	
Scanning System	2:1 Interlace			
Synchronization	Internal			
Frequency	H : 15.734KHz V : 59.94Hz		H: 15.625KHz V : 50.00Hz	
Horizontal Resolution	600TVL			
Min. Illumination	0.04 Lux / F1.2			
S / N (Y signal)	52dB (Weight On, AGC Off)			
Video Output	CVBS : 1.0Vp-p, 75Ω composite			
LENS				
Focal Length	3mm	6mm	3mm	6mm
Angular Field of View	H : 95°, V : 75°, D : 120°	H : 46°, V : 34°, D : 60°	H : 95°, V : 75°, D : 120°	H : 46°, V : 34°, D : 60°
PAN / TILT				
Pan / Tilt Range	0° ~ 352° / 0° ~ 75°			
OPERATIONAL				
Shutter Mode	ESC, A.FLK, Manual			
Lens Shade	On / Off (Level adjustable)			
SSDR	On / Off (Level adjustable)			
Backlight Compensation	BLC / HLC / OFF			
Day & Night	COLOR / BW / AUTO (Electronic Type)			
Gain Control	Low / High / Off			
White Balance	ATW / Outdoor / Indoor / Manual / AWC (1,700°K ~ 11,000°K)			
SENS-UP	Auto / Off (Selectable x2 ~ x512)			

Specification

Motion Detection	On / Off (8 Programmable zones)	
Privacy Masking	On / Off (12 Programmable zones)	
SSNR3	On / Off (Level adjustable)	
Digital Zoom	On / Off (x1 ~ x16)	
DIS	On / Off	
Camera Title	On / Off (Displayed 15 Characters)	
Sharpness	On / Off (Level adjustable)	
Flip / Mirror	On / Off	
Communication	Coaxial (Pelco Coaxitron)	
Electronic Shutter Speed	1/60 ~ 1/120,000 sec	1/50 ~ 1/120,000 sec
On Screen Display	English, Korean, Japanese, Spanish, French, Portuguese, Taiwanese	English, Chinese, German, Italian, French, Spanish, Russian, Czech, Polish, Romanian, Serbian, Swedish, Danish, Turkish, Portuguese
ENVIRONMENTAL		
Operating Temperature / Humidity	-10°C ~ +50°C / Less than 90% RH	
MECHANICAL		
Dimension / Weight	Ø104 x 67mm / 180g	

※ The specification for this product may change without prior notice for product improvement.

Declaration of Conformity

Application of Council Directive(s)	2004 / 108 / EC
Manufacturer's Name	SAMSUNG TECHWIN CO., LTD
Manufacturer's Address	SAMSUNG TECHWIN CO., LTD 42, SUNGJU-DONG CHANGWON-CITY, KYUNGNAM, KOREA, 641-120
European Representative Name	
European Representative Address	
Equipment Type/Environment	MINI DOME CAMERA
Model Name	SCD-2010/2030
Beginning Serial NO.	C53C6V3Z200001X, C58I6V3Z200001X
Year of Manufacture	2010.02.01
Conformance to	EN 55022 : 2006 EN 50130-4 : 2003

We, the undersigned, hereby declare that the equipment specified above conforms to the above Directive(s).

Manufacturer	SAMSUNG TECHWIN CO., LTD	Legal Representative in Europe
Signature	BJ Gu	Signature
Full Name	BONJENG GU	Full Name
Position	QUALITY CONTROL MANAGER	Position
Place	CHANGWON, KOREA	Place
Date	2010. 02. 01	Date